

Non responsive due to revised scope



August 15, 2019

Mr. [redacted]
Environmental Restoration, LLC
1666 Fabick Drive
Fenton, MO 63026

Certificate of Analysis

Project Name: **Soil Samples**

Workorder: **3050494**

Purchase Order:

Workorder ID: **Shiloh Church Rd**

Dear [redacted]:

Enclosed are the analytical results for samples received by the laboratory on Friday, August 9, 2019.

The [redacted] is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact [redacted]

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the [redacted]

CC: Accounts Payable

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

[redacted]

Project Coordinator

Non responsive due to revised scope

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SAMPLE SUMMARY

Workorder: 3050494 Shiloh Church Rd

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3050494001	Articles 01	Solid	8/8/2019 15:10	8/9/2019 09:04	Collected by Client

Non responsive due to revised scope



SAMPLE SUMMARY

Workorder: 3050494 Shiloh Church Rd

Notes

- Samples collected by [redacted] personnel are done so in accordance with the procedures set forth in the [redacted] Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

Non responsive due to revised scope



PROJECT SUMMARY

Workorder: 3050494 Shiloh Church Rd

Sample Comments

Lab ID: 3050494001

Sample ID: Articles 01

Sample Type: SAMPLE

EPA Methods require samples to be transported at 4 unfrozen to 6 degrees centigrade. This can be accomplished by adding ice to the cooler before transporting to the lab. The temperature of this sample was above 4 unfrozen to 6 degrees centigrade when received.

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ANALYTICAL RESULTS

Workorder: 3050494 Shiloh Church Rd

Lab ID: 3050494001

Date Collected: 8/8/2019 15:10

Matrix: Solid

Sample ID: Articles 01

Date Received: 8/9/2019 09:04

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
WET CHEMISTRY										
Moisture	14.9		%	0.1	S2540G-11			8/12/19 11:27		
Total Solids	85.1		%	0.1	S2540G-11			8/12/19 11:27		
TCLP METALS										
Arsenic, Total	ND		mg/L	0.14	SW846 6010C	8/13/19 17:05	SXC	8/15/19 09:58		A1
Barium, Total	ND		mg/L	2.8	SW846 6010C	8/13/19 17:05	SXC	8/15/19 09:58		A1
Cadmium, Total	4.7		mg/L	0.011	SW846 6010C	8/13/19 17:05	SXC	8/15/19 09:58		A1
Chromium, Total	ND		mg/L	0.028	SW846 6010C	8/13/19 17:05	SXC	8/15/19 09:58		A1
Lead, Total	4.4		mg/L	0.033	SW846 6010C	8/13/19 17:05	SXC	8/15/19 09:58		A1
Selenium, Total	ND		mg/L	0.11	SW846 6010C	8/13/19 17:05	SXC	8/15/19 09:58		A1
Silver, Total	ND		mg/L	0.022	SW846 6010C	8/13/19 17:05	SXC	8/15/19 09:58		A1

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Project Coordinator

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

Workorder: 3050494 Shiloh Church Rd

Lab ID	Sample ID	Analysis Method	Prep Method
3050494001	Articles 01	S2540G-11	
3050494001	Articles 01	SW846 6010C	SW846 3015

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Condition of Sample Receipt Form

Client: <u>Environmental Restoration LLC</u>	Work Order #: <u>350494</u>	Initials: <u>[redacted]</u>	Date: <u>8/9/19</u>
1. Were airbills / tracking numbers present and recorded?.....			
Tracking number: <u>7759 3981 3770</u>		NONE <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
2. Are Custody Seals on shipping containers intact?.....			
		NONE <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
3. Are Custody Seals on sample containers intact?.....			
		NONE <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
4. Is there a COC (Chain-of-Custody) present?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5. Are the COC and bottle labels complete, legible and in agreement?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5a. Does the COC contain sample locations?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5b. Does the COC contain date and time of sample collection for all samples?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5c. Does the COC contain sample collectors name?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5d. Does the COC note the type(s) of preservation for all bottles?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5e. Does the COC note the number of bottles submitted for each sample?.....			
<u>filled in by [redacted]</u>		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5f. Does the COC note the type of sample, composite or grab?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
5g. Does the COC note the matrix of the sample(s)?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
6. Are all aqueous samples requiring preservation preserved correctly?.....			
		N/A <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
8. Are all samples within holding times for the requested analyses?.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.).....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?.....			
		N/A <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
11. Were the samples received on ice?.....			
<u>No direct contact</u>		YES <input checked="" type="radio"/>	NO <input type="radio"/>
12. Were sample temperatures measured at 0.0-6.0°C.....			
<u>Pm notified, samples being processed</u>		YES <input checked="" type="radio"/>	NO <input type="radio"/>
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below.....			
		YES <input checked="" type="radio"/>	NO <input type="radio"/>
13a. Are the samples required for SDWA compliance reporting?.....			
		N/A <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
13b. Did the client provide a SDWA PWS ID#?.....			
		N/A <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
13c. Are all aqueous unpreserved SDWA samples pH 5-9?.....			
		N/A <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
13d. Did the client provide the SDWA sample location ID/Description?.....			
		N/A <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>
13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?.....			
		N/A <input checked="" type="radio"/>	YES <input type="radio"/> NO <input type="radio"/>

Cooler #:

Temperature (°C): 11Thermometer ID: 318

Radiological (µCi):

COMMENTS (Required for all NO responses above and any sample non-conformance):



August 15, 2019

Mr. [Redacted]
Environmental Restoration, LLC
1666 Fabick Drive
Fenton, MO 63026

Certificate of Analysis

Project Name:	Soil Samples	Workorder:	3050493
Purchase Order:		Workorder ID:	Shiloh Church Rd

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[Redacted]

Project Coordinator

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SAMPLE SUMMARY

Workorder: 3050493 Shiloh Church Rd

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
3050493001	Articles 01	Solid	8/8/2019 15:10	8/9/2019 09:04	Collected by Client

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SAMPLE SUMMARY

Workorder: 3050493 Shiloh Church Rd

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MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
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(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits

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PROJECT SUMMARY

Workorder: 3050493 Shiloh Church Rd

Sample Comments

Lab ID: 3050493001

Sample ID: Articles 01

Sample Type: SAMPLE

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ANALYTICAL RESULTS

Workorder: 3050493 Shiloh Church Rd

Lab ID: **3050493001**
Sample ID: **Articles 01**

Date Collected: 8/8/2019 15:10 Matrix: Solid
Date Received: 8/9/2019 09:04

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	Cntr
PCBs										
Total Polychlorinated Biphenyl	20200		mg/kg	8720	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Aroclor-1016	ND	2	mg/kg	960	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Aroclor-1221	ND		mg/kg	960	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Aroclor-1232	ND		mg/kg	960	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Aroclor-1242	ND		mg/kg	960	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Aroclor-1248	ND		mg/kg	960	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Aroclor-1254	20200		mg/kg	960	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Aroclor-1260	ND		mg/kg	960	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
<i>Surrogate Recoveries</i>	<i>Results</i>	<i>Flag</i>	<i>Units</i>	<i>Limits</i>	<i>Method</i>	<i>Prepared</i>	<i>By</i>	<i>Analyzed</i>		<i>Cntr</i>
Decachlorobiphenyl (S)	0	4	%	49 - 115	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
Tetrachloro-m-xylene (S)	0	3	%	27 - 137	SW846 8082A	8/11/19 14:50	J1H	8/15/19 01:00		A
WET CHEMISTRY										
Halogen, Total Organic (TOX)	6450	1	mg/kg	5.7	SW846 9023			8/12/19 12:14		A
Moisture	16.3		%	0.1	S2540G-11			8/12/19 07:20		
Total Solids	83.7		%	0.1	S2540G-11			8/12/19 07:20		

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Project Coordinator

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ANALYTICAL RESULTS

Workorder: 3050493 Shiloh Church Rd

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
3050493001	1	Articles 01	SW846 9023	Halogen, Total Organic (TOX)
The sample for analysis was received at a temperature greater than 6C.				
3050493001	2	Articles 01	SW846 8082A	Aroclor-1016
This sample was analyzed at a dilution in the 8082 PCB analysis due to the level of Aroclor detected. Reporting limits were adjusted accordingly. One or more of the surrogates could not be evaluated as a result of the dilution.				
3050493001	3	Articles 01	SW846 8082A	Tetrachloro-m-xylene
The surrogate Tetrachloro-m-xylene for method SW846 8082A was outside of control limits. The % Recovery was reported as 0 and the control limits were 27 to 137. This result was reported at a dilution of 25000.				
3050493001	4	Articles 01	SW846 8082A	Decachlorobiphenyl
The surrogate Decachlorobiphenyl for method SW846 8082A was outside of control limits. The % Recovery was reported as 0 and the control limits were 49 to 115. This result was reported at a dilution of 25000.				

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ANALYSIS - PREP METHOD CROSS REFERENCE TABLE

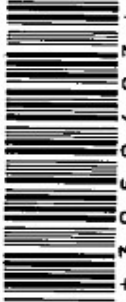
Workorder: 3050493 Shiloh Church Rd

Lab ID	Sample ID	Analysis Method	Prep Method
3050493001	Articles 01	S2540G-11	
3050493001	Articles 01	SW846 8082A	SW846 3546
3050493001	Articles 01	SW846 9023	

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CHAIN OF CUSTODY/
REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /
SAMPLER. INSTRUCTIONS ON THE BACK.



Client Name: Environmental Restoration		Container Type: Glass Glass	ANALYSES/METHOD REQUESTED		Completed by Receiving Lab	
Address: 1666 Fa Sick Drive Lenton, MO 63026		Coastal Site: 4021602	TOX, Metals PCB		W.O. Temp: Therm ID:	
Contact: [Redacted]		Parameters: NO NO			Analyst Initials:	
Phone#: [Redacted]					Courier/Tracking #:	
Project Name#: Shield Church Rd 35476					Purchase Order #:	
Bill To:					Project Comments:	
TAT: [Redacted]					Field Services: <input type="checkbox"/> Pickup <input type="checkbox"/> Labor	
Date Required: 8/17 - 8/18/19					<input type="checkbox"/> Composite Sampling <input type="checkbox"/> Rental Equipment	
Email: [Redacted]					Other:	
Fax: [Redacted]					Sample/COC Comments:	
Sample Description/Location (as it will appear on the lab report)		Date Collected mm/dd/yy	Time hh:mm	Enter Number of Containers Per Sample or Field Results Below.		
1	ARTICLES OI	08/08/19	15:10	CSO XI	HOLD SAMPLES FOR 60 DAYS.	
2				US 11/19/19		
3						
4						
5					TCLP metals logged in on separate WO# 3050494 @ Standard TAT	
6					8/9/19	
7						
8						
9						
10						
Sampler Comments: 2 Day TAT for PCB & TOX NO MERCURY METAL ANALYSES		Date/Time	Received By/Company Name	Date	Time	
[Redacted]		8/14/19	Red.V	8/14/19		
1						
3						
5						
7						
9						
Matrix: A=Air, DW=Drinking Water, GW=Groundwater, OL=Oil, OL=Other Liquid, SL=Sludge, SO=Soil, WP=Wipe, WW=Wastewater		EDDS: Formal Type:				

Condition of Sample Receipt Form

Client: Environmental Restoration LLC Work Order #: 3050493 Initials: [redacted] Date: 8/9/19

1. Were airbills / tracking numbers present and recorded?..... NONE ☒ YES NO
Tracking number: 7759 3981 3770
2. Are Custody Seals on shipping containers intact?..... NONE YES NO
3. Are Custody Seals on sample containers intact?..... NONE YES NO
4. Is there a COC (Chain-of-Custody) present?..... ☒ YES NO
5. Are the COC and bottle labels complete, legible and in agreement?..... YES ☒ NO
- 5a. Does the COC contain sample locations?..... YES NO
- 5b. Does the COC contain date and time of sample collection for all samples?..... YES NO
- 5c. Does the COC contain sample collectors name?..... YES NO
- 5d. Does the COC note the type(s) of preservation for all bottles?..... YES NO
- 5e. Does the COC note the number of bottles submitted for each sample?..... filled in by [redacted] YES ☒ NO
- 5f. Does the COC note the type of sample, composite or grab?..... YES NO
- 5g. Does the COC note the matrix of the sample(s)?..... YES NO
6. Are all aqueous samples requiring preservation preserved correctly?..... ☒ N/A YES NO
7. Were all samples placed in the proper containers for the requested analyses, with sufficient volume?..... YES NO
8. Are all samples within holding times for the requested analyses?..... YES NO
9. Were all sample containers received intact and headspace free when required? (not broken, leaking, frozen, etc.)..... YES NO
10. Did we receive trip blanks (applies only for methods EPA 504, EPA 524.2 and 1631E (LL Hg)?..... ☒ N/A YES NO
11. Were the samples received on ice?..... No direct contact YES NO
12. Were sample temperatures measured at 0.0-6.0°C..... Pm notified, samples being processed YES ☒ NO
13. Are the samples DW matrix ? If YES, fill out Reportable Drinking Water questions below..... YES ☒ NO
- 13a. Are the samples required for SDWA compliance reporting?..... ☒ N/A YES NO
- 13b. Did the client provide a SDWA PWS ID#?..... ☒ N/A YES NO
- 13c. Are all aqueous unpreserved SDWA samples pH 5-9?..... ☒ N/A YES NO
- 13d. Did the client provide the SDWA sample location ID/Description?..... ☒ N/A YES NO
- 13e. Did the client provide the SDWA sample type (D, E, R, C, P, S)?..... ☒ N/A YES NO

Cooler #:

Temperature (°C): 11Thermometer ID: 318

Radiological (µCi):

COMMENTS (Required for all NO responses above and any sample non-conformance):